

## 7.7. Lighting

### 7.7.1. General Applicability

- A. General Provisions.** The provisions of this section shall govern outdoor lighting (or "exterior lighting") for all development and redevelopment with the exception of the following:
1. Single family detached and attached units;
  2. Lighting for bridges, flags, and public buildings;
  3. Temporary holiday lighting;
  4. Lighting required by federal, state or local laws and regulations;
  5. Work in the public right-of-way.
- B. Design Standards.** Exterior lighting should be designed, installed, and maintained to provide safe, convenient, and efficient lighting for customers, pedestrians, and vehicles, while minimizing adverse impacts on adjacent properties and conserving energy. Lighting plans should be designed to implement Crime Prevention Through Environmental Design (CPTED) strategies to enhance the safety of City residents. Lighting should be designed to ensure:
1. Essential walkways, pedestrian routes, and common areas such as building entrances and stairwells are visible and lit;
  2. Car areas, including parking lots, driveways, and drive aisles are lit; and
  3. Space around buildings are lit.
- C. Height Calculation.** Where this section mentions height of lighting fixtures, the height of outdoor lighting fixtures shall be measured from the finished grade to the top of the fixture.

### 7.7.2. Lighting Plan

- A. Lighting Plan.** A lighting plan shall be required during review of any site and development plan, or zoning review which modifies existing lighting. The applicant must submit a lighting plan for review to determine consistency with these regulations. The lighting plan, which shall be a separate permit, shall be reviewed in conjunction with a site and development plan or zoning review. Unless otherwise exempt, it is a violation of this section to install or operate outdoor lighting without first obtaining lighting plan approval.
- B. Application for Outdoor Lighting Plan Approval.** An application for outdoor lighting plan approval must be submitted to Development Services on the appropriate application. At a minimum, the outdoor lighting plan must include the following:
1. The plan must be prepared by a licensed engineer, who shall sign and seal the plans and certify that the plan complies with this section;
  2. The plan must be of an engineered scale that is easily legible;
  3. The plan must show all proposed and existing buildings on the site, pedestrian and vehicular areas, other above-ground improvements, the horizontal location of all proposed and existing outdoor lighting fixtures including pole and wall-mounted fixtures, mounting heights of each fixture, overall height of each pole above grade, location of externally illuminated signs and associated fixtures, and the location of all architectural and landscape lighting fixtures.
  4. The plan must show initial horizontal illuminance values in footcandles for the area to be illuminated; other types of illuminance measurement are not acceptable. These values

must be calculated at grade and include contributions from all onsite fixtures. The plan must plot footcandles of illumination at ground level to the nearest tenth of a footcandle, and at horizontal grid intervals of no more than ten feet.

5. The manufacturer's cut sheets (specifications) for each proposed fixture must be submitted.
6. A lighting fixture schedule that presents the following information:
  - a. Lighting fixture plan identification symbol or abbreviation.
  - b. Fixture type, including the manufacturer's product identification catalog number.
  - c. Lamp type and wattage or LED luminaire wattage.
  - d. Fixture mounting height.

#### 7.7.3. Outdoor Lighting Standards.

**A. General Outdoor Lighting Standards.** All outdoor lighting plans must conform to the following regulations:

1. **Footcandles.** Illumination levels shall be measured in footcandles, defined as one lumen per square foot. Footcandles may not exceed 0.5 footcandles at the property line where the neighboring property is a residential use or a residential zoning district. For all other uses, illumination levels may not exceed 1.0 footcandles at the property line, not including entrances to nonresidential and multifamily uses which may not exceed 5.0 footcandles. To avoid glare and light spilling onto neighboring properties, fixtures must be installed with shields and reflectors. Fixtures shall not be tilted towards adjacent properties.
2. **Cutoff Fixtures.** All fixtures, except for streetlighting fixtures, including security lighting, must be cutoff fixtures. Cutoff fixtures shall emit no direct uplight and shall project all of its light in a downward motion.

Fig. 7.7.3.1. Cutoff Fixtures (Illustrative Example)



3. **Design.** All fixtures must be incorporated into the building or site as an integrated design element through the use of common or complementary style, material, and color.
4. **Prohibited.** The following are prohibited:
  - a. Sag lenses, convex lenses, and drop lenses are prohibited.
  - b. Floodlighting is prohibited except for non-retail industrial uses where the floodlight is internal to the site and cannot be seen from adjacent public rights-of-way and neighboring residential uses or residential zoning districts.

5. **External Building Lighting.** Fixtures that decoratively light a building or wall may not light above the parapet of the building or the top of the wall. Landscape and decorative lights with lamps of 60-watts or less (or the functional equivalent of 60-watts or less) are hereby made exempt from this subsection.
6. **Location and Height.** Light fixtures may not exceed 30 feet in height in vehicular areas, and shall be 12 to 15 feet in height in nonvehicular pedestrian areas.

Fig. 7.7.3.2. Light Fixture Height



- a. **Parking Area Heights.** The height of light fixtures within a parking area shall be required to stagger the heights of light fixtures so that the tallest fixtures are in the center of the parking lot, and the lowest heights are at the perimeter of the parking lot. Light fixtures height shall not exceed 30 feet within the center of a parking area and shall decrease height to 12 to 15 feet at the boundary of the parking area. To avoid conflict in layout, parking lot lighting must be coordinated with the parking lot's landscaping. Lighting design shall be coordinated with the landscape plan to ensure that vegetation growth will not substantially impair the intended illumination.

Fig. 7.7.3.3. Parking Area Heights



**B. Special Regulations for Outdoor Lighting.** Outdoor lighting plans must conform to the following regulations where applicable:

1. **Walkways, Bikeways, and Trails.** Walkway, bikeway, parks and trail lighting, and pedestrian facilities such as building connections or walkways to parking (excluding sidewalks) must conform to the following regulations:
  - a. **Intrusion.** All lighting shall be designed and installed to illuminate with a smooth, even pattern, without glare or light flow intrusion onto adjacent properties.
  - b. **Footcandles.** Illumination levels outside the radius of all light poles must range between 0.2 and 0.5 footcandles. Nature trails, walkways, and bikeways may be exempted from this minimum illumination level by the director if they find that the natural environmental objectives and purposes of the trail, walkway, or bikeway would be unreasonably compromised by this minimum lighting requirement and that the location and environmental design of the trail, walkway, or bikeway reasonably provides natural surveillance and otherwise protects public safety.
  - c. **Path Lighting.** Parks and trails are encouraged to utilize bollard or path lighting not exceeding 3-feet in height.

2. **Parking Garages.** Interior fixtures must be shielded to prevent light spilling from the garage. Light fixtures on the top deck of a parking garage may not exceed 15-feet in height and must be shielded to prevent light spilling from the boundary of the garage deck. Rooftop lighting of parking garages must be setback a minimum 25-feet from the perimeter of the rooftop parking structure.
  3. **Canopied Areas for Vehicles.** Lights and light fixtures for canopied areas commonly used for vehicular use such as drive-through facilities or gas stations must be recessed or cutoff fixtures and must conform to the following standards:
    - a. Luminaires in canopies may not rely on surrounding structures, including canopy edge, for required shielding.
    - b. Canopy fascia may not be internally lit.
    - c. LED lighting strips or neon tubing shall not be permitted. Decorate lights may be permitted along awnings, entranceways to buildings, or mounted for adjoining parking.
  4. **Outdoor Sports Fields and Performance Areas.** Lighting of outdoor sports fields and performance areas shall comply with the following regulations:
    - a. Glare Control Package. All lighting fixtures shall be equipped with a glare control package (e.g., louvers, shields, or similar devices) and aimed so that their beams are directed and fall within the primary playing or performance area.
    - b. Hours of Operation. The hours of operation for the lighting system for any game or event shall not continue more than one hour after the end of the game or event.
    - c. Height of Fixtures. Light fixtures shall not exceed a height of 80 feet.
    - d. Buffers Adjacent to Residential Properties. A landscaped buffer yard sufficient to prevent light and glare spillover to adjacent residential properties may be required by the Director.
  5. **Beachfront.** For all existing uses and new coastal construction abutting beaches or dunes, the lighting standards for Chapter 89, Section 2.4, shall apply. Exterior artificial light fixtures shall be designed so that the point source of light or any reflective surface of the light fixture is not directly visible from the beach, and areas seaward of the frontal dune are not directly, indirectly or cumulatively illuminate.
  6. **Rooftop Uses.** Lighting for rooftop uses (such as a restaurant or lounge) shall be pedestrian in scale and not exceed 12 feet in height. Lighting fixtures shall be located toward the center of the structure, away from its edges and not face outward. All lighting shall be designed to effectively eliminate glare, shielded to prevent light spilling over the side of the building, and shall be turned off when the rooftop area is not in use.
- C. **Sign Lighting.** Lighting fixtures illuminating signs shall comply with the standards of Section 7.3, and such fixtures shall be aimed and shielded so that direct illumination is focused exclusively on the sign face.